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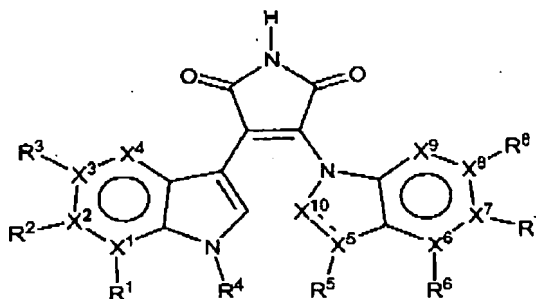
JUN 27 2007

Amendments to the Claims:

This listing of claims replaces all prior versions of claims in the application

1-30 (cancelled)

31. (currently amended) A compound represented by the following formula:



or a pharmaceutically acceptable salt thereof
wherein:

$X^1 - X^3$ are independently C or N;

X^4 is CH or N, wherein not more than two of $X^1 - X^4$ is N;

$X^6 - X^8$ are independently C or N;

X^9 is CH or N, wherein not more than two of $X^6 - X^9$ is N;

~~X^5 is N, R^5 is a lone pair, and X^{10} is CH, when the bond between X^5 and X^{10} is a double bond; or~~

~~X^5 is CH, R^5 is H, and X^{10} is CH_2 , when the bond between X^5 and X^{10} is a single bond; or~~

~~X^5 is C, R^5 is defined below, and X^{10} is CH, when the bond between X^5 and X^{10} is a double bond;~~

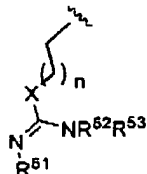
~~$R^1 - R^3$ and $R^6 - R^8$ represent a lone pair or O when each respective $X^1 - X^3$ and $X^6 - X^8$ is N; or~~

when $X^1 - X^3$ or $X^6 - X^8$ is C, each respective $R^1 - R^3$ and $R^6 - R^8$ is independently selected from the group consisting of:

- a) H, substituted or unsubstituted C(1-8) alkyl, halogen, azido, cyano, nitro, or $NR^{21}R^{22}$, wherein R^{21} represents H or C(1-8) alkyl, and R^{22} represents H, substituted or unsubstituted C(1-8) alkylcarbonyl, substituted or unsubstituted arylcarbonyl, heterocycle, substituted or unsubstituted heteroarylcarbonyl, substituted or unsubstituted C(1-8) alkylaminocarbonyl, substituted or unsubstituted arylaminocarbonyl;
- b) OR^{23} , wherein R^{23} is H, substituted or unsubstituted alkylcarbonyl, substituted or unsubstituted arylcarbonyl;
- c) SR^{23} , wherein R^{23} is defined as in b);
- d) $O(CH_2)_jR^{24}$, $O(CH_2)_j-O-R^{24}$, or $O(CH_2)_j-S-R^{24}$, wherein j is an integer from 1 to 8, and R^{24} is selected from the group consisting of H, substituted or unsubstituted C(1-8) alkyl, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl;
- e) $S(CH_2)_jR^{24}$, $S(CH_2)_j-O-R^{24}$, or $S(CH_2)_j-S-R^{24}$, wherein j and R^{24} are defined as in d);
- f) $C\equiv C-R^{25}$, $C\equiv C-OR^{25}$, or $C\equiv C-CO_2R^{25}$, wherein R^{25} is H, substituted or unsubstituted C(1-8) alkyl, aryl, substituted aryl, heteroaryl, or substituted heteroaryl;
- g) $CH=CH-R^{25}$, $CH=CH-OR^{25}$, or $CH=CH-CO_2R^{25}$, having a stereochemistry of E or Z, and R^{25} is defined as in f);
- h) $C\equiv C-NR^{25}R^{26}$ or $C\equiv CCONR^{25}R^{26}$, wherein R^{25} is defined as in f), and R^{26} is defined as R^{25} , and R^{25} and R^{26} are selected independently;
- i) $CH=CH-NR^{25}R^{26}$ or $CH=CHCONR^{25}R^{26}$, having a stereochemistry of E or Z, wherein R^{25} and R^{26} are independently defined as in h);
- j) $(CH_2)_kR^{25}$, $(CH_2)_k-COOR^{25}$, or $(CH_2)_k-OR^{25}$, wherein k is an integer from 2 to 6 and R^{25} is defined as in f);
- k) $(CH_2)_kNR^{25}R^{26}$, $(CH_2)_kCONR^{25}R^{26}$, wherein R^{25} and R^{26} are selected independently, and R^{25} and R^{26} are defined as R^{25} in f); and
- l) CH_2XR^{27} , wherein X is O or S and R^{27} is H, substituted or unsubstituted C(1-8) alkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl;

R^4 is selected from the group consisting of:

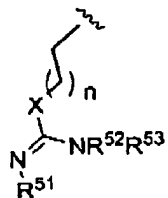
- m) H, substituted or unsubstituted C(1-8) alkyl; and
- n)



wherein $X=O$, S , or NH , $n=1$ to 4 ; and wherein R^{51} is H ; R^{52} and R^{53} are independently chosen from the group consisting of H , substituted or unsubstituted C(1-8)alkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, or R^{51} and R^{52} are combined to form a heteroalkyl, substituted heteroalkyl, heteroaryl, or substituted heteroaryl ring system;

R^5 is selected from the group consisting of:

- ~~e) a lone pair when X^5 is N ; or~~
- ~~when X^5 is C , R^5 is selected from the group consisting of:~~
- p) H , substituted and unsubstituted C(1-8) alkyl; and
- q)



wherein $X=O$, S , or NH , $n=1$ to 4 ; and wherein R^{51} is H ; R^{52} and R^{53} are independently chosen from the group consisting of H , substituted or unsubstituted C(1-8) alkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, or R^{51} and R^{52} are combined to form a heteroalkyl, substituted heteroalkyl, heteroaryl, or substituted heteroaryl ring system; ~~or.~~

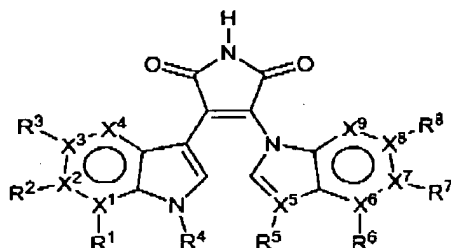
~~wherein when R^1 , R^3 and R^5 - R^8 are H , and R^4 is H or CH_3 , then at least one of X^1 - X^9 represents a ring member other than carbon.~~

32. (currently amended)

A compound, according to claim 31, in which X^1 - X^3

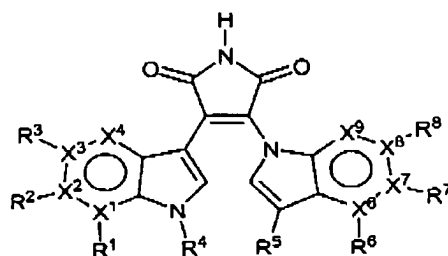
are independently C .

33. (currently amended) A compound, according to claim 31, in which X^4 is CH.
34. (currently amended) A compound, according to claim 31, in which $X^6 - X^8$ are independently C.
35. (currently amended) A compound, according to claim 31, in which X^9 is CH ~~or N~~.
36. (currently amended) A compound, according to claim 31, in which X^5 is C, X^{10} is CH and the bond between X^5 and X^{10} is a double bond.
37. (withdrawn) A compound, according to claim 31, in which X^5 is N, R^5 is a lone pair, X^{10} is CH and the bond between X^5 and X^{10} is a double bond.
38. (currently amended) A compound, according to claim 31, in which X^5 is CH, R^5 is H, X^{10} is CH_2 and the bond between X^5 and X^{10} is a single bond.
39. (currently amended) A compound having the following formula:



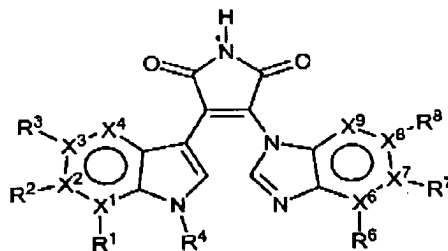
wherein X^5 is C ~~or N~~, and $X^1 - X^3$, X^4 , $X^6 - X^8$, $R^1 - R^3$, R^4 , R^5 and $R^6 - R^8$ are as defined in claim 31.

- 40 [[10]]. (currently amended) A compound having the following formula:



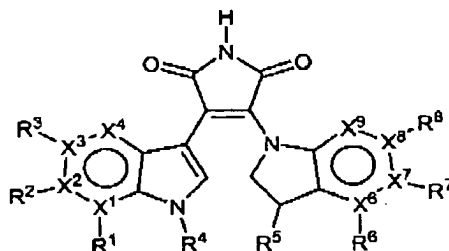
wherein X^1 - X^3 , X^4 , X^6 - X^8 , R^1 - R^3 , R^4 , R^5 and R^6 - R^8 are as defined in claim 31.

41[[11]]. (withdrawn) A compound having the following formula:



wherein X^1 - X^3 , X^4 , X^6 - X^8 , R^1 - R^3 , R^4 , R^5 and R^6 - R^8 are as defined in claim 31.

42[[12]]. (currently amended) A compound having the following formula:



wherein X^1 - X^3 , X^4 , X^6 - X^8 , R^1 - R^3 , R^4 , R^5 and R^6 - R^8 are as defined in claim 31.

43[[13]]. (currently amended) A compound, according to claim 31, in which when X^1 - X^3 or X^6 - X^8 is C, each respective R^1 - R^3 and R^6 - R^8 is independently selected from the group consisting of:

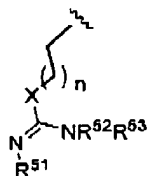
- H, halogen;
- OR^{23} , wherein R^{23} is H, substituted or unsubstituted alkylcarbonyl, substituted or unsubstituted arylcarbonyl; and
- $O(CH_2)_j-R^{24}$, $O(CH_2)_j-O-R^{24}$, or $O(CH_2)_j-S-R^{24}$, wherein j is an integer from 1 to 8, and R^{24} is selected from the group consisting of H, substituted or

unsubstituted C(1-8) alkyl, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl.

44[[14]]. (currently amended) A compound, according to claim 31, in which R^4 is selected from the group consisting of:

m) H, substituted or unsubstituted C(1-8) alkyl; and

n)

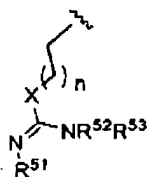


wherein $X=O$, S , or NH , $n=2$; and wherein R^{51} is H; R^{52} and R^{53} are independently chosen from the group consisting of H, substituted or unsubstituted C(1-8)alkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, or R^{51} and R^{52} are combined to form a heteroalkyl, substituted heteroalkyl, heteroaryl, or substituted heteroaryl ring system.

45[[15]]. (currently amended) A compound, according to claim 44[[14]], in which R^4 is selected from the group consisting of:

m) H, substituted or unsubstituted C(1-8) alkyl; and

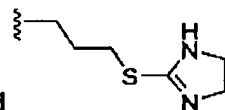
n)



wherein $X=S$, $n=2$; and wherein R^{51} is H; R^{52} and R^{53} are both H, or R^{51} and R^{52} are combined to form a heteroaryl ring system.

46[[16]]. (currently amended) A compound, according to claim 45[[15]], in which R^4 is selected from the group consisting of: H, methyl, $CH_2CH_2CH_2OH$,

$CH_2CH_2CH_2NH_2$, $CH_2CH_2CH_2N_3$, $CH_2CH_2CH_2SC(=NH)NH_2$ and

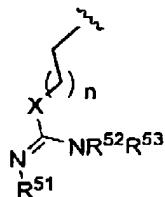


47[[17]]. (withdrawn) A compound, according to claim 31, in which X^5 is N and R^5 is a lone pair.

48[[18]]. (currently amended) A compound, according to claim 31, in which X^5 is C or CH, and R^5 is selected from the group consisting of:

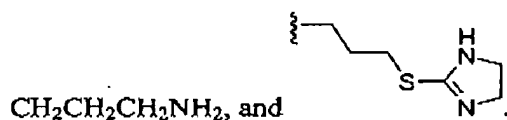
p) H, substituted and unsubstituted C(1-8) alkyl; and

q)

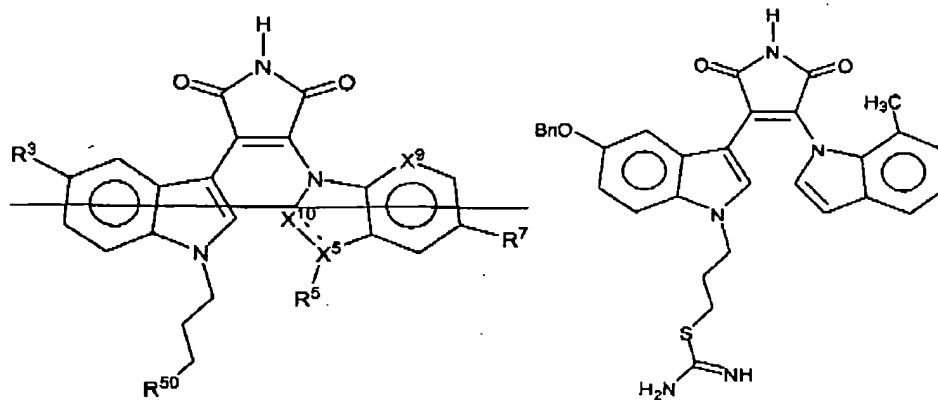


wherein $X=S$, $n=2$; and wherein R^{51} is H; R^{52} and R^{53} are independently chosen from the group consisting of H, substituted or unsubstituted C(1-8) alkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, or R^{51} and R^{52} are combined to form a heteroalkyl, substituted heteroalkyl, heteroaryl, or substituted heteroaryl ring system.

49[[19]]. (currently amended) A compound, according to claim 48[[18]], in which X^5 is C or CH, and R^5 is selected from the group consisting of H, methyl, $CH_2CH_2CH_2OH$, $CH_2CH_2CH_2SC(=NH)NH_2$, $CH_2CH_2CH_2N(CH_3)_2$, $CH_2CH_2CH_2N_3$,

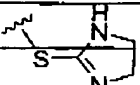


50[[20]]. (currently amended) A compound, according to the following formula

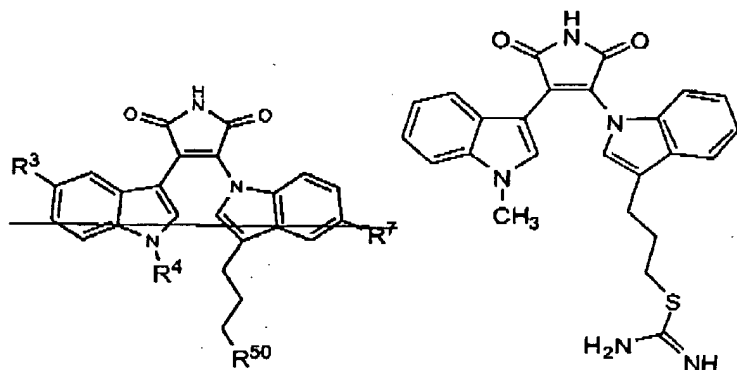


~~selected from the group consisting of:~~

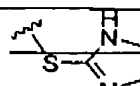
| Cpd. | Bond between X^5/R^{10} | R^3 | R^{50} | R^2 | X^5/R^5 | X^9 | X^{10} |
|------|---------------------------------|-------|-----------------------------------|-------|-----------|-------|----------|
| 121 | Double | H | -OH | H | CH | CH | CH |
| 124 | Double | BnO | -OH | H | CH | CH | CH |
| 125 | Double | H | -OH | H | CMe | CH | CH |
| 126 | Double | H | -OH | BnO | CH | CH | CH |
| 127 | Double | H | -OH | H | CH | CH | CMe |
| 128 | Double | H | -OH | H | N | CH | CH |
| 129 | Double | BnO | -OH | H | CMe | CH | CH |
| 130 | Double | H | -OH | H | CH | N | CH |
| 131 | Double | BnO | -OH | H | CH | CH | CMe |
| 132 | Double | H | -OH | F | CH | CH | CH |
| 133 | Double | H | -N(CH ₃) ₂ | H | CH | CH | CH |
| 136 | Double | BnO | -N(CH ₃) ₂ | H | CH | CH | CH |
| 137 | Double | H | -N(CH ₃) ₂ | H | CMe | CH | CH |
| 138 | Double | H | -N(CH ₃) ₂ | BnO | CH | CH | CH |
| 139 | Double | H | -N(CH ₃) ₂ | H | CH | CH | CMe |
| 140 | Double | H | -N(CH ₃) ₂ | H | N | CH | CH |
| 141 | Double | BnO | -N(CH ₃) ₂ | H | CMe | CH | CH |
| 142 | Double | H | -N(CH ₃) ₂ | H | CH | N | CH |
| 143 | Double | H | -SC(=NH)NH ₂ | H | CH | CH | CH |
| 146 | Double | H | -SC(=NH)NH ₂ | H | CMe | CH | CH |
| 147 | Double | H | -SC(=NH)NH ₂ | BnO | CH | CH | CH |
| 148 | Double | BnO | -SC(=NH)NH ₂ | H | CH | CH | CH |
| 149 | Double | BnO | -SC(=NH)NH ₂ | H | CH | CMe | CH |
| 150 | Double | BnO | -SC(=NH)NH ₂ | H | CH | CH | CMe |
| 151 | Double | H | -SC(=NH)NH ₂ | H | CH | CH | CMe |
| 152 | Double | H | -SC(=NH)NH ₂ | H | CH | N | CH |
| 153 | Double | MeO | -SC(=NH)NH ₂ | H | CH | CH | CH |
| 154 | Double | F | -SC(=NH)NH ₂ | H | CH | CH | CH |
| 155 | Double | H | -SC(=NH)NH ₂ | F | CH | CH | CH |

| Cpd. | Bond between X ⁵ /X ¹⁰ | R ³ | R ⁶⁰ | R ⁷ | X ⁵ /R ⁶ | X ⁹ | X ¹⁰ |
|------|--|--------------------------|---|----------------|--------------------------------|----------------|-----------------|
| 156 | Double | H |  | H | CH | CH | CH |
| 159 | Single | H | -SC(=NH)NH ₂ | H | CH ₂ | CH | CH ₂ |
| 160 | Double | OCH ₂ S Ph | -SC(=NH)NH ₂ | H | CH | CH | CH |
| 161 | Double | H | -N ₃ | H | CH | CH | CH |
| 162 | Double | H | -NH ₂ | H | CH | CH | CH |

51[[21]]. (currently amended) A compound according to the following formula:



selected from the group consisting of:

| Example | R ³ | R ⁶⁰ | R ⁷ | R ⁴ |
|---------|----------------|---|----------------|----------------|
| 163 | H | OH | H | H |
| 164 | H | OH | H | Me |
| 165 | BnO | OH | H | H |
| 166 | H | SC(=NH)NH ₂ | H | H |
| 167 | H | SC(=NH)NH ₂ | H | Me |
| 168 | BnO | SC(=NH)NH ₂ | H | Me |
| 169 | H | N(CH ₂) ₂ | H | Me |
| 170 | H |  | H | Me |
| 171 | H | N ₃ | H | Me |
| 172 | H | NH ₂ | H | Me |

52[[22]]. (currently amended) A composition comprising a compound, according to claim 31, in combination with carrier.

53[[23]]. (withdrawn) The composition, according to claim 52[[22]], further including a chemotherapeutic agent.

54[[24]]. (withdrawn) The composition, according to claim 52[[22]], further including a cytokine.

55[[25]]. (withdrawn) The composition, according to claim 52[[22]], further including anti-sense oligonucleotides.

56[[26]]. (withdrawn) A method of treating an inflammatory disorder, the method comprising: administering to a subject in need thereof an effective amount of a compound or a composition, according to claim 31 or 52[[22]], so as to treat the disorder.

57[[27]]. (withdrawn) A method of treating cancer, the method comprising: administering to a subject in need thereof an effective amount of a compound or a composition, according to claim 31 or 52[[22]], so as to treat the cancer.

58[[28]]. (withdrawn) A method of treating a cell proliferative disorder, the method comprising: administering to a subject in need thereof an effective amount of a compound or a composition, according to claim 31 or 52[[22]], so as to treat the disorder.

59[[29]]. (withdrawn) A method of treating cancer, the method comprising: administering to a subject in need thereof an effective amount of a compound or a composition, according to claim 31 or 52[[22]], in combination with another chemotherapeutic agent.

60[[30]]. (withdrawn) Use of a compound or a composition, according to claim 31 or 52[[22]], so as to induce apoptosis in Jurkat cells.

61[[31]]. (withdrawn) Use of a compound or a composition, according to claim 31 or 52[[22]], so as to induce apoptosis in cancer cell lines.

62[[32]]. (withdrawn) The use, according to claim 31, in which the cancer cell lines are prostate cancer and breast cancer cell lines

63[[33]]. (withdrawn) A method of treatment or prevention of a condition resulting from loss of growth and cellular differentiation control, the method comprising: administration to a subject in need thereof an effective amount of a compound or a composition, according to claim 31 or 52[[22]], so as to treat or prevent the condition.